Software Bid/ Project Teams

UCS 503- Software Engineering Lab

Group : 3C43 Dated: 7-8-2024

Team Name: Nischay
Team ID (will be assigned by Instructor):

Please enter the names of your Preferred Team Members. :

- You are required to form **a three to four person** teams
- Choose your team members wisely. You will not be allowed to change teams.

Name	Roll No	Project Experience	Programming Language used	Signature
Swastik Nagpal	102303585	Artisan-NGO Management System with Dual Dashboards for JPMC Code for Good	React.js, TailwindCSS, HTML, CSS, JavaScript, Node.js, Express.js, MongoDB	
Karamjit Malik	102303933	Library Management System	HTML, CSS, JavaScript, SQL, Python	
Devansh Wadhwani	102303631	SafeSpace AI	Python, C++, HTML, Tailwind CSS, Javascript, Scikit Learn, Tensorflow	
Shreya Giri	102303684	Movie Booking System	Python, SQL	

Programming Language / Environment Experience

List the languages you are most comfortable developing in, **as a team**, in your order of preference. Many of the projects involve Java or C/C++ programming.

1. JavaScript
2. C/C++
3. Python

Choices of Projects:

Please select **4 projects** your team would like to work on, by order of preference: *[Write at-least one paragraph for each choice (motivation, reason for choice, feasibility analysis, etc.)]*

	Project Name	Unique Selling Point
First Choice	**SquadUp** (A Team Management System)	Looking for team-members and can't find any? **SquadUp** is the perfect place to look up for teammates and for projects to work on, hosted by your own peers.

Second Choice	**Malicious Software Detector**	A secure way to download 3rd-party applications or files from the internet without worrying about getting your data leaked.
Third Choice	**Voice-based Personal Productivity Assistant**	A hands-free way to manage tasks, set reminders, and stay organized—powered by voice commands for seamless daily productivity.
Fourth Choice	**Real-time Object Detector**	An efficient way to detect and track objects instantly through your camera, enabling real-time decision-making without relying on cloud services.

1. **SquadUp** (A Team Management System)

   Our motivation for building *SquadUp* comes from a common challenge we've faced—finding teammates for events without a centralized platform. *SquadUp* offers users the ability to host or join teams under specific events or tags, while also enabling team leads to manage applications and communicate with potential members. The platform also supports event hosting, allowing organizers to share event details and connect with their target audience. Built using the **MERN stack** (ReactJS, Node.js, Express.js, MongoDB), *SquadUp* is designed for scalability and responsiveness. We plan to follow a phased development approach—starting with core team management features and gradually adding messaging, event creation, and smart user matching—to ensure a smooth, impactful rollout.

2. **Malicious Software Detector**

   We chose this project to address the growing threat of malware with a smarter, more adaptive solution. Traditional antivirus tools often miss new or unknown threats. Our system aims to detect malicious software using a combination of rule-based checks and machine learning, making it more effective and future-ready. Using Python for detection and the MERN stack for a simple user interface, we plan to build it in phases—starting with basic scanning and adding intelligent detection over time. This makes the project both practical and impactful.

3. **Voice-based Personal Productivity Assistant**

   We chose this project to make everyday computer tasks faster and easier by using voice commands. Many people switch between apps to set reminders, take notes, or check the time—so we wanted to build a tool that does it all just by listening to your voice. Our assistant will understand simple commands like “create a note,” “what’s the time?”, or “set a reminder,” and respond instantly. It’s a beginner-friendly project that uses Python, speech recognition, and text-to-speech, making it easy to build and expand. This project helps us learn about voice interaction and create something genuinely useful for daily life.

4. **Real-time Object Detector**

We chose this project to explore how machines can understand and interact with the world visually, just like humans do. Real-time object detection has powerful applications—from security cameras to self-driving cars—and we aim to build a system that can identify and track objects instantly using a webcam feed. With Python and deep learning, combined with a simple web interface, our goal is to create a fast, accurate, and practical solution. It's a highly engaging project that blends AI with real-world impact.

Additional Remarks/ Inputs

Please tell us about any other factors that we should take into consideration (e.g., if you really would like to work on a project for some particularly convincing reason).

We want to work on *SquadUp* because it solves a real problem we've experienced firsthand. Whether it's a hackathon, group project, or any team-based event, finding the right teammates is often a frustrating and time-consuming process. There's currently no smooth, dedicated platform for forming or managing teams around specific events—and that's exactly the gap we want to fill.

By working on *SquadUp*, we're not only tackling a technically interesting full-stack challenge—we're also building something that we believe would have helped us in the past, and can now help others going forward.